

REMARKS

Claims 1,3-16 and 18-29 are pending in the Application. Claims 1, 11, 16 and 26 are independent. Claims 1, 6, 11, 16, 22 and 26 are amended. No new matter is added.

Examiner Interview

An Examiner Interview was conducted on December 17, 2008 between Examiner Robert Timblin and representative of the Applicants, F. Sirjani. Applicants thank the Examiner for courtesies extended to Applicants during the aforesaid interview. Applicants presented proposed amendments to the Examiner. The Examiner indicated that the new claim limitations contained in the proposed amendments could still be allegedly found in Platt and pointed to col. 20, lines 19-24 of Platt for teaching the proposed element. Applicants disagreed. Thus, no agreement was reached.

Objections to the claims

Claim 11 is being amended to overcome an objection due to informalities mentioned by the Examiner.

Claim 26 is amended to change all occurrences of “circuit, routine or application” to “circuit” alone. Applicants submit that with these amendments any concerns of the Examiners regarding this claim being directed to a “hardware system” should be alleviated. However, Applicants are also amending the claim to include a processor and a memory as suggested by the Examiner.

As amended, claims 11 and 26 overcome the objections and withdrawal of the objections is respectfully requested.

Claim Rejections – 35 U.S.C. 103

Claims 1, 3, 11, 12, 14-16 and 19 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Platt (U.S. Patent No. 6,993,532) in view of Zhang (U.S. Patent No. 6,944,607).

Claims 4-7, 13, 18, 20-22 and 27 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Platt and Zhang in view of Foote (“Automatic Audio Segmentation Using a Measure of Audio Novelty,” FX Palo Alto Laboratory Inc.).

Claims 8-10 and 23-25 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Platt, Zhang and Foote and further in view of Schwanke (U.S. Patent No. 5,485,621).

Claim 28 is rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Platt, Zhang and Foote and further in view Gargi (U.S. Patent Application Publication No. 2005/0027712).

Claim 29 is rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Platt and Zhang and further in view Gargi.

Applicants respectfully traverse these rejections in view of the amendments to the claims and further in view of the following arguments.

Claim 1

Claim 1 recites “A method for organizing a plurality of data files using meta-data wherein at least one meta-data element is associated with each data file, the method comprising:

extracting the at least one meta-data element associated with each data file; organizing the extracted meta-data elements into a single ordered set wherein the set is ordered consecutively based on values of the extracted meta-data elements; calculating pair-wise differences between values of the extracted meta-data elements for all possible pairs of data files; inputting at least one value of a clustering sensitivity parameter, said clustering sensitivity parameter defining granularity of the clustering, and multiplying each pair-wise difference by the clustering sensitivity parameter to obtain a plurality of similarity values for determining clustering based on the similarity values and at a granularity defined by the clustering sensitivity parameter; and dividing the selected data files into groups based on the similarity values.” (Emphasis added.)

Support for the amendments to claim 1 may be found throughout the specification and drawings and, for example, in paragraph 17 of the published Application stating “In various exemplary embodiments, the data is organized using a comparison between all possible pairs of data or a subset of all possible pairs of data.” (U.S. Patent Application Publication No. 2005/0097120; paragraph [0017]; emphasis added.)

Applicants submit that Platt and Zhang do not teach or suggest a “method for organizing a plurality of data files using meta-data ... comprising: extracting the ... meta-data element associated with each data file; organizing the extracted meta-data elements into a single ordered set ... calculating pair-wise differences ... for all possible pairs of data files” of claim 1.

The Office action is citing to Platt for allegedly teaching all elements of claim 1 except for the “clustering sensitivity parameter” which is allegedly taught by Zhang. (Office action, p. 5.)

Platt is directed to matching songs or other media to a seed item that is input by the user. (Platt, Abstract.) Applicants submit that Platt does not teach “calculating pair-wise differences ... for all possible pairs of data files” of claim 1. Column 3, lines 40-44, element 530 showing a “difference vector” in figure 5, and table 1 of Platt are cited against this element of claim 1. These cited portions of Platt, and Platt in general, only establish calculating differences or similarities of a user item with a seed item. Platt does not teach calculating differences or similarities “for all possible pairs of data files” as claimed in claim 1.

Selected portions of Platt are provided below that include the portions cited by the Office action:

Another aspect of the present invention provides a system that facilitates generating lists. The system includes a media library data store that stores user items, a reference metadata database that stores as-added descriptive metadata associated with user items, a item identifying system operable to associate descriptive metadata with a user item, and a list generation system operably connected to the media library data store and the reference metadata database. The list generation system includes a seed item input subsystem adapted to receive at least one seed item, a similarity subsystem operable to produce a similarity value that characterizes the degree to which a candidate client item and the seed item(s) are similar, and a list generating subsystem operably connected to the similarity subsystem, where the list generating subsystem produces a list based, at least in part, on the degree to which candidate client items are related to the seed item(s).

(Platt, col. 3, lines 6-22; emphasis added.)

The above passage of Platt shows that Platt is calculating similarities of “client items” with a “seed item” not similarities between client items themselves.”

Yet another aspect of the present invention provides a method for generating a list. The method includes producing as-added descriptive metadata associated with one or more candidate user items, producing similarity data that characterizes the similarity between a candidate user item and user-selected seed item(s), and producing a list of one or more user items related to the seed item(s). The similarity data is a difference vector, where the difference is taken between two different feature vectors, each of which describes a candidate user item and a seed item. In one example method, the user items can be songs, music videos, movies, documents, books, and/or images, the item identifying data can be an artist, a collection name and/or a work name, and a feature vector can have fields associated with a genre feature, a subgenre feature, a style feature, a mood feature, a vocal coding feature, a rhythm type feature and/or a rhythm description feature, for example.

(Platt, col. 3, lines 34-49; emphasis added.)

Again, the above portions of Platt show that the similarity or difference vectors is taken between two vectors: a user item vector and the seed item vector.

The cited element 530 of figure 5 of Platt just shows the difference vector and Platt describes this feature as “Since the seed item feature vector 510 and the candidate item feature vector 520 both code information relating to seven attributes, the difference vector 530 may be, for example, a seven bit factor.” (Platt, col. 8, lines 49-51.) This passage again shows that the difference vector is taken between a candidate item and a seed item; not between every pair of candidate items. Table 1 on col. 9 of Platt again has numbers showing a match between the seed and each candidate item and does not teach the element of claim 1. (Platt, col. 9, lines 19-25.)

Col. 20, lines 19-24 of Platt raised during Examiner Interview

The above portion was raised by the Examiner during the telephonic interview on December 17, 2008. The written description of Platt preceding and following the cited portion are provided below:

FIG. 16 is a flowchart illustrating a method 1600 for generating a final list. The following segment of pseudocode can be employed to implement the method illustrated in the flowchart associated with generating a final list via generating similarity values. At 1610, the similarity between the Cartesian product of a seed list and a user list is computed. At 1620, the mean similarity over that Cartesian product is computed. At 1630, the similarity list is generated and sorted.

TABLE-US-00004

If seed song has track id then

Seed list = seed song

Else if seed song has artist id then

Seed list = all user songs with same artist id

Else

Final list = all user songs with same artist name as seed song

Return final list

Endif

For each user song with track or artist id

If user song has track id then

User list = user song

Else if user song has artist id then

Check cache for similarity of seed to artist id

If similarity value is in cache

Add user song and similarity to final list

Go to next user song

End if

User list = all user songs with same artist id

End if

Compute limits to similarity computation

Compute similarity over all possible pairs of songs on seed list and user list.

subject to limits

similarity value = mean value over pairs

if use song has no track id

store similarity in cache

end if

add user song and similarity to final list

End for

Sort final list by decreasing similarity

Return final list

In the case where the seed song has a known track identifier, then the seed list consists of the seed song. Otherwise, if the seed song has a known artist identifier, then the seed list consists of user items whose artist identifier matches the seed song artist identifier. Otherwise, if the seed song is unknown, the final similarity list will include those user items whose artist name matches the seed song artist name. If there is more than one seed song, the seed list can be the concatenation of the seed list for all of the individual songs that have known artist or track identifiers. A user list is computed analogously for user songs that contain a track identifier or

artist identifier. If the user song has a track identifier, then the user list is the user song. Otherwise, the user list is user songs whose artist identifier matches the artist identifier of the user song under consideration. For efficiency concerns, in one example of the present invention, limits may be placed on the Cartesian product between the seed list and the user list. If one of the two lists contains only a single song, iteration over the other list is limited to a pre-determined, configurable threshold (e.g., to 200 items). If both lists contain more than one song, then iteration over both lists is similarly limited to a pre-determined, configurable threshold (e.g., to 30 items). For further efficiency concerns, in one example of the present invention, when a user song does not have a track identifier, the similarity between the seed song(s) and the user song is cached, so that if another user song has the same artist identifier but a missing track identifier, then the cached value may be retrieved and employed.

(Platt, col. 19, line 59 to col. 20, line 58; emphasis added.)

The pairs in Platt have one user song and one seed song not two user songs. The above portions of Platt merely confirm that a similarity is found between a seed list and a user list; not between the members of the user list themselves. For example, the underlined portion: “the similarity between the Cartesian product of a seed list and a user list is computed” shows that a dot product between a seed vector having seed components and a user vector having user components is calculated. The bolded portions of the program pertain to placing limits, for example 200 items or 30 items, when calculating the similarity values. The “possible pairs” referred to in the passage still pertain to pairs whose members include one seed song and one user song; it does not indicate that both members of the pair are user songs. As such, this passage does not teach or suggest “calculating pair-wise differences ... for all possible pairs of data files” of claim 1 either.

Zhang is cited for teaching a clustering sensitivity and does not cure the deficiency of Platt. Accordingly, claim 1 is believed to be patentable over Platt and Zhang alone or in combination.

The cited portions of the remaining references are cited for teaching additional features of the dependent claims and do not cure the deficiency of Platt and Zhang. Therefore, not all elements of claim 1 are taught or suggested by the cited references.

Accordingly, Claim 1 is believed to be patentable over the cited references taken alone or in combination.

Claim 11

Claim 11 recites in part “calculating pair-wise difference between values of the extracted meta-data elements for all possible pairs of data files.”

Applicants submit that at least the above element of claim 11 is not taught or suggested by the cited references, alone or in combination.

Accordingly, Claim 11 is believed to be patentable over the cited references taken alone or in combination.

Claim 16

Claim 16 recites in part “instructions for calculating pair-wise difference between values of the extracted meta-data elements for all possible pairs of data files.”

Applicants submit that at least the above element of claim 16 is not taught or suggested by the cited references, alone or in combination.

Accordingly, Claim 16 is believed to be patentable over the cited references taken alone or in combination.

Claim 26

Claim 26 recites in part “a similarity value determining circuit that: selects at least one clustering sensitivity parameter value, said clustering sensitivity parameter defining granularity of clustering, and calculates a similarity value for all possible pairs of data files in the plurality of data files by performing a pair-wise comparison of the extracted meta-data elements, corresponding to all possible pairs of data files, and multiplying the pair-wise comparison by the clustering sensitivity parameter value.”

Applicants submit that at least the above element of claim 26 is not taught or suggested by the cited references, alone or in combination.

Accordingly, Claim 26 is believed to be patentable over the cited references taken alone or in combination.

Dependent Claims

Claims 3-8, 27 and 28 depend from claim 1. Claims 12-14 depend from claim 11. Claims 18-25 depend from claim 16.

With respect to the rejection of dependent claims while continuing to traverse the Examiner's characterization of the teachings of the references used by the Examiner in rejecting these claims, Applicants respectfully submit that the rejections of these claims are rendered moot

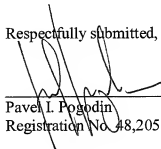
by the present amendments of the parent claims and that these dependent claims are patentable by definition, by virtue of their dependence on their respective parent independent claims.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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